IN THE CLAIMS:

1-19. (Canceled)

20. (Previously presented) An *in vitro* method of inducing somatic differentiation of undifferentiated, pluripotent human embryonic stem cells, wherein said undifferentiated, pluripotent human embryonic stem cells are prepared by a process comprising:

obtaining an *in vitro* fertilised human embryo and growing said embryo to a blastocyst stage of development;

removing inner cells mass (ICM) cells from said embryo;

culturing said ICM cells under conditions which do not induce extraembryonic differentiation and cell death and promote proliferation of undifferentiated stem cells; and

recovering stem cells;

said method comprising growing said stem cells under culture conditions that induce somatic differentiation, wherein said culture conditions comprise prolonged cultivation of the undifferentiated stem cells on a differentiation inducing fibroblast feeder layer to induce a differentiated somatic lineage or multiple differentiated somatic lineages, said conditions do not permit continued stem cell renewal but do not kill stem cells or induce their unidirectional differentiation into extraembryonic lineages.

21. (Previously presented) The method according to claim 20 wherein the differentiation inducing fibroblast feeder layer is a mouse and/or human fibroblast feeder layer.

22. (Previously presented) The method according to claim 20 or 21 wherein said fibroblast feeder layer comprises embryonic fibroblasts.

23. (Previously presented) The method according to claim 20 or 21 wherein the fibroblasts are tested for their ability to promote embryonic stem cell growth and to limit extraembryonic differentiation.

24. (Previously presented) The method according to claim 20 or 21 wherein the fibroblasts are prepared and tested for their ability to allow somatic differentiation of embryonic stem cells.

25. (Previously presented) The method according to claim 20 or 21 wherein said culture conditions comprise cultivating the cells for prolonged periods and/or at high density in the presence of a differentiation inducing fibroblast feeder layer to induce somatic differentiation.

26. (Previously presented) A method for the isolation of committed progenitor cells from a culture of differentiated cells, said method comprising:

preparing a culture of differentiated cells according to claim 20 or 21; and

isolating committed progenitor cells from the culture.

27-37. (Canceled)

38. (Previously presented) An *in vitro* method of inducing somatic differentiation of undifferentiated, pluripotent human embryonic stem cells, wherein said undifferentiated, pluripotent human embryonic stem cells are prepared by a process comprising:

obtaining an *in vitro* fertilised human embryo and growing the embryo to a blastocyst stage of development;

removing inner cell mass (ICM) cells from the embryo;

culturing ICM cells on a fibroblast feeder layer to obtain proliferation of undifferentiated stem cells; and

recovering the stem cells from the feeder layer;

said method comprising growing the stem cells under culture conditions that induce somatic differentiation, wherein said culture conditions comprise prolonged cultivation of the undifferentiated stem cells on a differentiation inducing fibroblast feeder layer to induce a differentiated somatic lineage or multiple differentiated somatic lineages, said conditions do not permit continued stem cell renewal but do not kill stem cells or induce their unidirectional differentiation into extraembryonic lineages.

39. (Previously presented) The method according to claim 38 wherein said differentiation inducing fibroblast feeder layer is at least one of a mouse fibroblast feeder layer or human fibroblast feeder layer.

40. (Previously presented) The method according to claim 38 or 39 wherein said fibroblast feeder layer comprises embryonic fibroblasts.

41. (Previously presented) The method according to claim 38 or 39 wherein the fibroblasts are tested for their ability to promote embryonic stem cell growth and to limit extraembryonic differentiation.

42. (Previously presented) The method according to claim 38 or 39 wherein the embryonic fibroblasts are prepared and tested for their ability to allow somatic differentiation of embryonic stem cells.

43. (Previously presented) The method according to claim 38 or 39 wherein said culture conditions comprise cultivating the cells for prolonged periods and/or at high density in the presence of a differentiation inducing fibroblast feeder layer to induce somatic differentiation.

44. (Previously presented) A method for the isolation of committed progenitor cells from a culture of differentiated cells, said method comprising:

preparing a culture of differentiated cells according to claim 38 or 39; and

isolating committed progenitor cells from the culture.

45-46. (Canceled)

47. (New) An *in vitro* method of inducing somatic differentiation of undifferentiated, pluripotent human embryonic stem cells, comprising:

providing a somatic differentiation-inducing fibroblast feeder layer;

growing said undifferentiated, pluripotent human embryonic stem cells under culture conditions that induce a differentiated somatic lineage or multiple

differentiated somatic lineages, wherein said culture conditions comprise cultivation of the undifferentiated stem cells on said differentiation inducing fibroblast feeder layer, and said culture conditions do not permit continued stem cell renewal but do not kill stem cells or induce their unidirectional differentiation into extraembryonic lineages.

48. (New) The method according to claim 47 wherein the differentiation inducing fibroblast feeder layer comprises mouse or human fibroblasts, or both mouse and human fibroblasts.

49. (New) The method according to claim 47 wherein said fibroblast feeder layer comprises embryonic fibroblasts.

50. (New) The method according to claim 47 wherein the fibroblasts have been tested prior to use thereof in said method for their ability to allow somatic differentiation of embryonic stem cells and to limit extraembryonic differentiation.

51. (New) The method according to claim 47, wherein said culture conditions further comprise cultivating the cells for prolonged periods or at high density, or for prolonged periods at high density.

52. (New) The method according to claim 47, wherein said undifferentiated, pluripotent human embryonic stem cells are prepared by a process comprising:

obtaining an *in vitro* fertilised human embryo and growing the embryo to a blastocyst stage of development;

removing inner cell mass (ICM) cells from the embryo;

culturing ICM cells on a fibroblast feeder layer to obtain proliferation of undifferentiated stem cells; and

recovering the stem cells from the feeder layer.

53. (New) The method according to claim 52, wherein said fibroblast feeder layer for culturing ICM cells comprises mouse or human fibroblasts, or both mouse and human fibroblasts.

54. (New) The method according to claim 53 wherein said fibroblast feeder layer for culturing ICM cells comprises embryonic fibroblasts.

55. (New) The method according to claim 52, wherein the fibroblasts for culturing ICM cells have been tested prior to use thereof in said method for their ability to allow somatic differentiation of embryonic stem cells and to limit extraembryonic differentiation.